Production of Bio-gas from Municipal Garbage

*223. SHRIMATI KAMLA SINHA†
SHRI MOHAMMED AFZAL alias MEEM AFZAL:

Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that municipsl garbage including wastes from underground sewarage can produce bio.gas and bio-energy;

(b) whether it is also a fact that Sulabh International has successfully achieved it;

(c) whether it is also a fact that the by-products of such a process can be used as manures and irrigation water; and

(d) if so, whether Government propose to give special incentives to all the municipalities for such pro jects; and if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF^NON-CONVEN-TIONAL ENERGY SOURCES WITH ADDITIONAL CHARGE OF THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI S. KRISHNA KUMAR): (a) Yes Sir.

(b) Yes Sir, a technology for anaerobic digestion of night soil linked with community toilets was developed by Sulabh International with close interaction of Bio-gas R&D Committee of this Ministry. Sulabh International ha$_s$ not been involved in recycling of either municipal garbage or Municipal Sewage.

(c) Yes Sir, the residues after anaerobic digestion of such wastes could be used as manure and irrigation water after appropriate treatment to remove pathogens and other bacteria.

† The question was actually asked on the floor of the House by Shrimati Kamla Sinha.

(d) The Government is providing incentives for Sewage Gas plants to the extent of 50-75 per cent of incremental capital cost (subject to maximum of Rs. 25 lakhs per plant system). It is applicable to all municipalities, local bodies as well as Non-Govemmental Organisations.

The Government is providing fixed subsidy for Night Soil biogas p^nts. For capacities of 8, 10, 15, 20, 25 cum gas production per day, the subsidy is Rs. 23,700/-, Rs. 29,700/-, Rs. 43. 500/-, Rs. 56,100/- and Rs. 68,80OL respectively.

SHRIMATI KAMLA SINHA: Mr. Chairman, Sir, for the first time the Minister's reply is somewhat in the affirmative. The Minister in his reply has accepted that bio-gas can be made a cheap mods of energy through R&D Committee of his Ministry. When the Government thinks that it can be made a cheap method of producing bio-energy, why has not this citernative cheaper method been-developed, because we know that the thermal power input cost is going up? If this method is developed, it can reduce the cost of our energy production. So, I would like to know whether the Government is doing something in this regard or not. If water is recycled, it can be used for irrigation also. We know that our water table is going down. There will be scarcity of water in many places and when farmers need water for their farms, there will be less of water. So, this can also be developed.

MR, CHAIRMAN: Please put the question. Do not make a statement.

SHRIMATI KAMLA SINHA: I am not making a statement, Sir.

MR. CHAIRMAN: Please put the question.

SHRIMATI KAMLA SINHA: Alright Sir. This can also be done.

I would like to know what the Government is doing in this regard and whether the Government is going to start some pilot projects based on this new technology and if so, how much Budgetary allotments, both plan and non-plan allotments, have been made in this regard. This is my first supplementary, Sir.

SHRI S. KRISHNA KUMAR: Sir, we have already answered, in some detail, the programmes that the Government have already launched for the- creation of bio-gas and bio-energy out of municipal waste and sewage. The Government have a programme. We have already set up three pilot plants for sewage gas production and 98 plants for production of bio-gas from night-soil. We have spent Rs. 3,10,00,000/.. We have set apart Rs. 5 crores for this segment of activity in the Ministry in the Eight Plan. It is true that this is a very desirable course of action for the manufacture or creation of non-conventional energy. We have more than 3000 cities and towns and it is estimated that 70,000 tonnes of municipal garbage and 28000 million liters of liquid waste per day are available and it is possible to produce equivalent energy which can save Rs. 135 crores on oil and so on. However, the point is, the technology is proved but it is not true that it is as cost-effective as some of the other methods of creation of energy. The programme has to be implemented in conjunction with sewage treatment which is obligatory with regard to municipal waste, for environmental considerations When tht sewage treatment programme is implemented in our municipals ities successfully—the hon. Member is aware that it is not implemented in full in many areas—with it, and also in conjunction with many other projects such as the Ganga Action Plan and the programmes for making our rivers pollution free for which there is a massive programme in the Environment Ministry, as a supplemental programme, the treated sewage can be used to create additional energy which can, be used locally. But it is costlier than other conven-tional or non-conventional forms of energy. So, the Government has a programme and the department is acting in conjunction with the other departments to make it a mass based programme.

MR. CHAIRMAN: Second supple, mentary.

SHRMATI KAMLA SINHA; Sir, the hon. Minister has himself accepted that this is an environment-and-teo-friendly technology. Even if it is not so cost-effective, its by-products are so much useful. The manure can be used for our farms, the water can be used for irrigation and, at the same time, the energy can be used for lighting the streets and as cooking-gas in homes, etc. etc. So, even if it is not so cost-effective, will the Government do something about it? Will the Government give some preference for starting these projects, at least as pilot projects in the big cities in India?

SHRI S. KRISHNA KUMAR: Certainly, Sir. As I have said earlier, in conjunction with the sewage treatment programmes of municipalities and metropolitan cities and the programmes such as the Ganga Action Plan and the River Pollution Control Programme, this programme of Bio-Gas and Bio-Energy Generation is already being implemented by other departments such as the Ministry of Environment and local bodies such as municipalities. This is already being done and we shall certainly, as a nodal Ministry, try to improve the programme and make it more universal.

श्री मोहम्मद अफजल उर्फ मीम अफजल: जनाब चेयरमेन साहब, मंत्री जी यह बताने की कृपा करेंगे कि आपके रिसर्च एण्ड डवलपमेंट विभाग ने क्या पूरे मुल्क में कोई ऐसा जायजा लिया है, जिससे यह पता लग सके कि शहरों के अंदर जो गारबेज है या जो वस्ट

है, उससे टोटल कितनी एनर्जी और कितनी गैस हासिल की जा सकती है और कितना एरीगेशन वाटर इससे इस्तेमाल के लायक बनाया जा सकता है? अगर ऐसी कोई रिसर्च पूरे मुल्क के पैमाने पर नहीं की है तो मैं समझता हूं कि किसी एक शहर पर जरूर की गई होगी। और, अगर किसी एक शहर पर ही की है तो वह बताने की कृपा करें और अगर ऐसा नहीं किया गया है तो क्या गवर्नमेंट ऐसा कोई प्लान रखती है कि इस तरह की कोई रिसर्च कराई जाए? दूसरा हिस्सा, मेरा यह है कि अब तक पूरे मुल्क में कितने मीथेन गस प्लांट हैं, टोटल कितने काम कर रहे हैं, कितनों के परपोजल आपके पास है, जिसको आप बनाने जा रहे हैं, कितने बन रहे हैं और उससे कितनी गैस और कितनी एनर्जी हमको हासिल होगी?

SHRI S. KRISHNA KUMAR: Sir, I had .- lready stated that the urban population in the country produce 70.000 tonnes of solid waste and 23,000 million litres of liquid waste per day and if we can convert it through the Anaerobic Digestive Process to ener gy, we can produce energy which is equivalent to Rs. 135 crores p year in terms of use of kerosene *v* This can also meet the fuel require ments of 1/10th to l/15th of th- po-, pulation which produces the sewage.

As rtgards the second oart of the supplementary, as I said, Sir, there ere 3,000 cities ranging from metro. polises to small towns. I do not have readily available information how many have a sewage system. Many hive sewage systems which are not complete: part of it is discharged treated Or untreated, into the water bodies. That particular information I will have to collect from the Ministry of Urban Development and other Ministries and I can supply that information to the hon. Member.

SHRI VIREN J. SHAH: Sir, is the hon. Minister aware that the Scientific Advisor to the Prime Minister, Dr. Gawarikar. had prepared a plan two years back about garbage disposal in metropolitan cities and that one year back, the then Governor of Maharashtra had called a conference in Bom. bay, where Dr. Gawarikar made a presentation about proper disposal of garbage and providing suitable latrines? I would like to know whether any further action has been taken in the four or five metropolitan cities, Delhi, Bombay, Calcutta, Madras and elsewhere to implement the proposal of Dr. Gwarikar and if so, what is the progress made PO far?

SHRI S. KRISHNA KUMAR: Sir, the question refers to the Ministry of Science and Techno logy, but I am aware that the Ministry has sanctioned a scheme to provide 1,000 to 3,000 toilets, including the creation of bio-energy system, through a Govemment sponsored charitable trust, headed by Mr. Gawarikar. As far as I am aware, about 660 toilets at 22 locations have already been completed at a cost of 1-35 crores of rupees. *(Interruptions)*

SHRI VIREN J. SHAH: Sir, the Ministry of Science and Technology is under the charge of the Prime Minister. So, has the Gawarikar plan been implemented :.n the metropolitan cities? The other part of my question was that particularly for Bombay, a specific action programme was drawn out by the then Governor of Maharashtra. What is the progress in this respect? (Intpmiptions)

MR. CHAIRMAN: That is a different question. It does not relate to his Ministry but to some other Ministry. *(Interruptions)*

SHRI VIREN J. SHAH: No, Sir, It relates to the Ministry of Science and Technology. So I am addressing the Prime Minister. The Scienec and Technology Minister comes under him. *(Intermptioii?)*

MR. CHAIRMAN: I know that. But the question does not relate to that Ministry. (Interrupttons)

SHRI VIREN J- SHAH; The question relates *to* bio-gas, latrines and garbage. Sir, the question relates to garbage.

MR. CHARMAN: He has answered that it is functioning in Bombay. He has already said that. *(Interruptions)*

SHRI VIREN J. SHAH: I am sorry, Sir.

MR. CHAIRMAN: You better put it as a separate question.

SHR VIREN J. SHAH: Will the Minister inform me as to how much progress has been made in this respect?

MR. CHAIRMAN: That does not come under his Ministry.

SHRI S. KRISHNA KUMAR: Sir, I have alrerdy said, 660 latrinej have been completed at a cost of Rs. 1.35 crores. If you want further details about other matters, you can ssk separately and we will furnish the information.

SHRI JAGESH DESAI: For quite some time, the Government is giving due importance to non-conventional sources of energy. The Government is interested and we are also interes ted in cheap sources of energy. About 10 years back, there was a proposal for Kutch which is one of the most backward districts. If a cheaper source of energy is found for that area, that backward area will be ben efited much by that. There was a proposal for generating energy from tidal waves in the Gulf of Kutch. I would like to know from the hon. Minister what the status of this pro posal is. Thb being a backward dis trict, will the Government give top priority to clear this proposal?
would like to know what the present status of this proposal is.

SHRI S. KRISHNA KUMAR: Sir, the potential for tidal energy in the country is estimated at around 8000 MW out of which 700 MW is in the Gulf of Cambay and 100O MW is in the Gulf of Kutch and a minor mega-wattage at Sunderban in West Bengal. The Government of India had sanctioned a feasibility study for a tidal power plant i_n the Gulf of Kutch in 1982. The Central Electricity Authority had prepared and given the feasibility report in 1988. That feasibi-bilty report had some defects. A revised feasiblity report for 990 MW plant was given in 1992. The project cost was about Rs. 3000 crores at 1990 prices. Even in this project re-pirt experts had found some deficiencies. So, this project report is under revision. The cost of production is somewhat higher than the cost of *production of the latest hydro electro* projects. The implementing authority is the National Hydro Electric power Corporation. Now, we have asked for the speeding up of this project report. When this project report is finally given, we will have to examine it on merits especially with regard to the availability of funds. But generally speaking, we are interested in starting any path breaking project of non-conventional energy even if its cost is higher, as a demonstration project. This is the only way we can go forward.

SHRI MURLIDHAR CHANDRA-KANT BHANDARE: Sir, one of the most important aspects underlying this question is our concern and also the shame we carry for the obnoxious practice of humw being carrying the night-soil. Now, there are two aspects. First of all, the reluctance of our population to link up the latrine with the bio-gas plant. Secondly, we have a programme of night soil plant which was initiated in 1988-89. This has to be an integrated approach be cause our Government is firmly committed to the elimination of this pernicious and obnoxious practice. May I ask the hon. Minister as to what steps are taken as a part of sn integrated programme to educate the population, narticularly the rural population to link the night-soil with the bio-gas and to intensify the night-soil plant programme?

SHRI S. KRISHNA KUMAR: One programme of abolition of manual scavenging and other related prog-grammes are being implemented by the Ministry of Welfare. But we are aiding organisations like the Sulabh International in Bihar and Gandhi Smarak Nidhi in Pune, Maharashtra, non-Governmental organisations which are popularising the technology of utilising either individual night-soil or sewage from the comm-i unity toilets for treatment as well as creation of bio-gas and bio-energy. As I said earlier in answer to the question, we have already spent Rs. 3 crores on various types of pilot Plants. We have set apart Rs. 5 crores for this activity which includes dipeomination of this information throughout the country. But the work which cannot be done by this Ministry has to be done by several agencies including the municipalities, non-Govemmental agencies, State Gov-ernments and so on. This is certainly part of the main thrust of our priorities in the Non.Conventional Energy Sources Ministry.

Transfer of judges of High Courts

*224. SHRI SHIV PRATAP MISHRA: Will the PRIME MINISTER be pleased to state:

(a) whether Government have a proposal under their consideration to transfer judges of High Courts from places where their close relations practise as lawyers;

(b) if so, the details thereof; and

(c) if not, the reasons therefor?

THE MINISTER. OF STATE IN THE MINISTRY OF LAW, JUSTICE AND COMPANY AFFAIRS (SHRI H. R BHARDWAJ): (a) There is no such proposal under consideration at present.

(b) Does not arise.

(c) The Chief Justices of High Courts have themselves considered in their Conference held in September, 1992, the desirability of not recommending ordinarily persons whose relatives are practising in the same High Court.

SHRI SHIV PRATAP MISHRA: Mr. Chairman, Sir, a news item has been published in the *Indian Express* dated 5-2-1993 that the Chairman of the Bar Council of India had criticised the conduct and functioning of the Judges of various High Courts that they did favour to their relatives' who were praticising there as lawyers by withdrawing or revising their earlier orders and it caused irr. eparable damage to the institution of judiciary. He also warned them that he would report to the Chief Justice of lndia for their transfer to places where their relations were not practising as lawyers if they did not stop showing favouritism to their rela-tive -.. I would like to know from the hon. Minister to what extent the statement of the Chairman of the Bar Council of India is correct and how many cases of such nature have come to the notice of the Government for suitable action and what action is being contemplated by the Government so that the Judges of courts should maintain thein credi-bility and the dignity of the institution of judiciary.

SHRI H. R. BHARDWAJ: Mr. Chairman, Sir, so far as I am concerned, I want and it is our duty fo see that the integrity of the Justices is acceptable to the people. With regard to the complaints made by the Bar Council of India or for that matter, any other individual or anv other forum, our practice is to refer them to the Chief Justice cf India for his kind views. Such complaints do come and this problem is being discussed in he judicial circles themselves. It is very difficult for the Government to criticise anybody, but we do take cognizance of the views of the Bar Association and the Bar Council and send them to the Chief Justice. As I submitted in